

**GOLF PRACTICE PUTTING DEVICE AND METHODOLOGY
RELATED APPLICATIONS**

This application claims benefit of priority to provisional application Serial No. 60,427,278, filed November 18, 2002, the contents of which is incorporated by reference in its entirety herein.

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates generally to a device and methodology for golf putting practice. More particularly, this invention relates to a golf putting training device that is portable and easy to use, does not physically interfere with the putting stroke or forward movement of the ball, and is relatively inexpensive to manufacture.

Background Description

It takes good putting to stay near the top of one's golf game. A golfer can hit every fairway and every green, but if he or she is not putting well, they will not post a low score. In fact, putting is often a great equalizer between power and finesse golfers. That is why many professionals devote as much practice time to honing their putting strokes as they do to perfecting their full swings.

Putting is probably the area with the greatest room for improvement in most amateurs' games. Proper stance, eye location, club stroke, ball speed, direction and distance control are crucial to successful putting. If a golfer cannot control speed, direction or distance, it does not matter how well he or she reads the green. Likewise, if one's stance, eye location or club stroke is flawed, the chances of success are greatly diminished.

As with many aspects of golf, putting can be improved with a repetitive putting routine. Of course, the routine should facilitate taking a proper stance, eye location and club stroke. Additionally, the routine should allow the golfer to easily adjust the position of the ball with respect to the hole to hone speed, direction and distance control.

Given the importance of putting, it should come as no surprise that many training contraptions have emerged over the years. Many such devices employ walls, flanges, tethers and/or other physical guides to physically constrain one's putting stroke and/or the forward motion of a golf ball. Aside from being complex and costly to manufacture, such devices are believed to cause golfers to develop dependencies. It is believed that putting without these physical aids then becomes like riding a bicycle without training wheels for the first time. It is difficult for a dependent golfer to execute putts effectively.

Another deficiency of many previous solutions for practicing putting is that they are neither convenient to carry nor easy to set up. Instead they are cumbersome, may have several adjustable parts and might require setup and configuration. Moreover they are conspicuous and unsightly. Thus, most such devices are relegated to use in the privacy of one's own home or yard.

Yet another deficiency of previous solutions for practicing putting is that they include a surface upon which the golf ball rolls for all or part of its travel. The included artificial surface makes it difficult to judge and control speed and distance when putting on an authentic green.

What is needed is a device that facilitates taking a proper stance in relationship to a ball, aiming a ball towards a hole (or similar target), and correctly positioning and swinging a putter. The device should be portable, preferably fitting in a pocket, golf bag pouch, or the like. Additionally, the device should be very easy to setup. Preferably the device is a one-piece unit having no moving parts so it can be quickly deployed on any putting green. Furthermore, the device should be inconspicuous, so as not to discourage use on practice greens at golf courses by inviting undue attention or distracting or interfering with other golfers using the practice green.

The invention is directed to overcoming one or more of the problems as set forth above.

SUMMARY OF THE INVENTION

5 It is, therefore, an object of an exemplary embodiment of the present invention to provide a device for golf putting practice that does not constrain one's putting stroke and/or forward motion of a golf ball.

 It is another object of an exemplary embodiment of the present invention to provide a device for golf putting practice that is relatively
10 inexpensive to manufacture.

 It is yet another object of an exemplary embodiment of the present invention to provide a device for golf putting practice that is portable.

 It is a further object of an exemplary embodiment of the invention to provide a device for golf putting practice that is easy to setup.

15 It is yet a further object of an exemplary embodiment of the present invention to provide a device for golf putting practice that is easy to use.

 It is still a further object of an exemplary embodiment of the invention to provide a device for golf putting practice that is
20 inconspicuous.

It is another further object of an exemplary embodiment of the invention to provide a device for golf putting practice that allows the golf ball to roll on the actual putting surface for its entire travel.

To achieve these and other objectives, a device for golf putting practice in accordance with an exemplary embodiment of the present invention includes a relatively thin elongate member with a longitudinal centerline for alignment with the center of the putter head during a stroke, means for positioning a golf ball at the head end so that the center of the golf ball is in alignment with the centerline, a hole adjacent to the opposite end for receiving a golf tee, and one or more horizontal lines perpendicular to the centerline for squaring the putter

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects, features and advantages of the present invention will become better understood with reference to the following description, appended claims, and accompanying drawings, where:

Figure 1 is a perspective view conceptually depicting an exemplary device for golf putting practice in accordance with the principles of the present invention;

Figure 2 shows an exemplary device for golf putting practice in accordance with the principles of the present invention along with a ball, putter and tee;

Figure 3 shows another exemplary device for golf putting practice in accordance with the principles of the present invention; and

Figure 4 is a flow chart of an exemplary methodology for practicing putting in accordance with the principles of the present invention.

DETAILED DESCRIPTION

A device for golf putting practice in accordance with an exemplary embodiment of the present invention includes a relatively thin elongate member, such as member 110 in Figure 1. The member 110 should be sized sufficiently for a standing golfer to comfortably visualize it while the member is placed on the ground adjacent to the golfer's feet. The member 110 is also preferably long enough to accommodate a normal putting stroke from backswing to ball contact. The member is preferably thin enough to avoid physically interfering with a putting stroke, yet thick enough to engage a golf ball at the head end as described below. Exemplary members of approximately 10 to 15 inches in length, 1 to 2 inches in width and $\frac{1}{8}$ to $\frac{1}{2}$ inch thick, have been found effective; though other effective lengths, widths and thickness are intended to come within

the scope of the present invention. Though the member is depicted as having a generally rectangular shape, those skilled in the art will appreciate that other shapes, including arcuate sides, may be used without departing from the scope of the present invention.

5 The member preferably includes two opposite ends 120 and 130. A backstroke end 120 is referred to herein as the back or back end. The other end 130, which is opposite the back end, is referred to herein as the head end. It coincides with the position of the ball for putting.

10 In an exemplary embodiment, the member 110 includes a centerline 140. The centerline 140 preferably extends along the longitudinal center of the member 110. It marks the desired line of travel of the putter head. The centerline 140 may be comprised of a readily visible groove, low-profile protrusion or colored marking. During a putting stroke, the center or "sweet spot" of the putter (typically marked
15 with a line, dot, notch or other indicia on most conventional putter heads) is preferably placed and moved in visual alignment with the centerline 140. Although many putting stroke styles and techniques may be practiced in connection with the present invention, an exemplary practice stroke entails sliding the putter with the sweet spot in alignment with the
20 centerline and the bottom of the putter head in gentle contact with the surface of the device.

The head end 130 preferably includes a means 150 for positioning a golf ball at the head end 130 so that the center of the golf ball is in alignment with the centerline 140. As shown in Figure 1, the means may be comprised of a semicircular or arc cutout having a radius slightly larger than the radius of a conventional golf ball. The diameter of a typical golf ball is from about 1.680 inches to about 1.800 inches. Significantly, the positioning means 150 does not interfere with forward motion of the golf ball, i.e., it is a non-interfering ball alignment means. Other non-interfering cutouts, notches and/or protrusions may be used to facilitate positioning the golf ball at the head end so that its center is in alignment with the centerline 140, without departing from the scope of the present invention.

Preferably, the device includes a means for releasably securing the device to a putting surface. For example, a hole 160 for accommodating a golf tee is located near the back end 120 in an exemplary device. When the device is placed on the ground for putting practice, a golf tee may be inserted into the hole 160 and into a putting green or similar natural surface beneath the device. Thus, the hole enables use of an inserted golf tee to securely fasten the device to a putting surface. It also provides a pivot point to allow aiming of the device. Means other than the hole described above, such as (for example) one or more pins protruding from

the underside of the member 110, may be used for releasably securing the device to a putting surface without departing from the scope of the present invention. Additionally, a plurality of such means may be provided without departing from the scope of the present invention.

5 The member also preferably includes at least one horizontal line 170 perpendicular to the centerline 140 and preferably adjacent to the head end. The horizontal line provides a means for visually squaring the putter face as it is moved through a stroke and contacts the golf ball. The horizontal line 170 may be comprised of a readily visible groove, low-
10 profile protrusion, colored marking or the like.

Other horizontal lines 310 and 320, as shown in Figure 3, may be provided (in addition to or in lieu of horizontal line 170) to gauge the amount of backswing and to facilitate visually squaring the putter face at the back (i.e., backswing end) of the stroke. By way of example, a
15 plurality of horizontal lines may be spaced along the member perpendicular to the centerline. The spacing between horizontal lines may be equidistant, incremental, decreasing or otherwise. Increasing backswing can provide extra energy to get the ball to a hole a longer distance away. Each horizontal line may extend the full width of the
20 device 110 or part of the width. Additionally, the horizontal lines may have a uniform length and width or varying lengths and/or widths.

However, an exemplary embodiment of the present invention omits such other horizontal lines because they may have a tendency to cause a user to cease movement during the backswing portion of the putting stroke to align and square the putter head with one of the horizontal lines. An uninterrupted smooth stroke is preferred, starting at horizontal line 170, proceeding through a backswing and returning to and passing the horizontal line 170 to squarely contact the ball.

In an alternative embodiment of the invention, the device may be two-sided. By way of example and not limitation, each side may include a centerline 140 and a horizontal line 170. One side may additionally include a plurality of horizontal lines spaced along the member perpendicular to the centerline 140.

If a plurality of horizontal lines are provided, each horizontal line may include characteristics and/or indicia to distinguish it from other horizontal lines. Such characteristics and indicia may include (for example) line length, line width, an alphanumeric character, a color code, an icon, or a combination or plurality of any of the foregoing. The distinguishing characteristics and indicia may, for example, help a golfer readily recall and visually identify a horizontal line that defines a desired backswing.

A device in accordance with an exemplary embodiment of the present invention may be comprised of wood or metal such as (for example) oak, maple, pine, hickory, cedar, poplar, cypress or spruce wood; or brass, steel, stainless steel or aluminum metal or a metal alloy.

5 Alternatively the device may be comprised of a plastic or polymeric material such as polyvinyl chloride (PVC), polyethylene, polypropylene, polystyrene, acrylics, cellulose, acrylonitrile-butadiene-styrene terpolymers, urethanes, thermo-plastic resins, thermo-plastic elastomers (TPE), acetal resins, polyamides, polycarbonates and polyesters.

10 Combinations of the foregoing materials may also be used. Though other materials may be used, preferably the material is relatively inexpensive and durable; non-corrosive, corrosion resistant, or treated to resist corrosion; easy to use in manufacturing operations and results in an aesthetically pleasing product.

15 A device in accordance with an exemplary embodiment of the present invention may be produced using any suitable manufacturing techniques known in the art, such as (for example) machining; extrusion; injection, compression, structural foam, blow, or transfer molding; polyurethane foam processing techniques; vacuum forming; and casting.

20 Though other techniques may be used, preferably the technique is

relatively inexpensive, accommodates the chosen material, and efficiently results in an aesthetically pleasing product.

Furthermore, a device in accordance with the present invention may include instructions printed or engraved on it as conceptually shown in Figures 1 and 3. The instructions may, for example, be provided on the bottom and/or top of the member 110. Additionally, the device may include advertising and promotional messages and logos.

In use, a device in accordance with the present invention is placed on the putting surface with the centerline and horizontal lines facing up. Preferably the surface is a natural putting green. If so, a golf tee may be inserted through the hole 160 and into the turf. Next, a ball is placed against the positioning means 150 for aligning a golf ball at the head end. Then, the putter face is squared with horizontal line 170, i.e., at a right angle to the surface of member 110 and in horizontal alignment with horizontal line 170. Next, the putter is slid or swung back with the center of the putter head in alignment with the centerline 140 and the face of the putter being square. Lastly, the putter is swung or slid straightforward with the center of the putter head in alignment with the centerline 140 and the face of the putter being square.

Referring now to Figure 2, to start the ball on a proper path, one must first decide what is the proper path. In other words, one must "read

the green." The decision will be determined by such factors as slope, green speed, grain and length of putt. While a device in accordance with the present invention does not read the green, it facilitates aiming and consequently changing the direction of the putting stroke by pivoting around the hole 160 with an inserted golf tee 220.

Using a device in accordance with the present invention, the objective is to strike the center of the golf ball 230 with the center or "sweet spot" of the face of the putter 210 and the putter face square, i.e., at a right angle to the surface of member 110 and in horizontal alignment with horizontal line 170. These are key steps to a good putt.

Referring now to Figure 3, an important controller of distance is backswing length. Increasing backswing provides extra energy to move the ball a longer distance. If a plurality of horizontal lines 310 and 320 are provided, they may be used to gauge the amount of backswing and to facilitate visually squaring the putter face at the back of the stroke. Through repetition, a golfer may associate each horizontal line with a certain distance putt. Even without horizontal lines, a golfer may gauge an amount of backswing based roughly on the position of club head with respect to the device.

Referring now to Figure 4, a flowchart of an exemplary methodology according to the principles of the invention is provided.

Initially, a golf practice putting device in accordance with the invention is placed on the putting surface, which may be a putting green or some other natural or artificial surface used for putting, as in step 410. If the surface is a natural surface, then a tee 220 may be inserted through pivot hole 160 and pressed into the ground, as in steps 420 and 430, or the device may be otherwise held in place or may be left unsecured on the putting surface. If the surface is an artificial surface, then the device may be left unsecured on the putting green. Next the ball is positioned, as in step 440. The ball is preferably placed adjacent to or abutting the head end 130 of the device and aligned with the centerline 140 of the device. After positioning the ball, the face of the putter may be squared, as in step 450. Squaring the putter face may entail aligning the putter head with the horizontal line 170, making the face of the putter generally perpendicular to the surface of the device, and aligning the sweet spot of the putter with the centerline. Next, the putter is brought back with the sweet spot aligned with the centerline, as in step 460. While a linear backward motion is preferred, other backstrokes such as an arcuate pendulum-like motion may also be used. Next, according to step 470, the putter is moved forward along substantially the same path as the backstroke and in alignment with the centerline, so that the sweet spot of the squared putter face impacts the

center of the aligned golf ball. A smooth continuous swing, without coming to a stop at the end of the backstroke, is preferred.

An advantage of the present invention is that the device may be comprised of one piece. In comparison, other putting practice devices may include an intricate arrangement of many components. Having fewer components reduces costs, facilitates manufacturing and enhances ease of use.

Another advantage of the present invention is that it does not physically interfere with a putting stroke or forward motion of the ball. Thus, it does not create physical dependencies. After repetitive practice, a golfer may omit the device and mentally visualize a centerline and horizontal line with respect to the ball to execute a good putt.

Yet another advantage of the present invention is that it is truly portable, inconspicuous and easy to use. It can be carried in a back pocket or in a golf bag compartment. Its unobtrusive nature enables a golfer to practice on a putting green without distracting other golfers or drawing unwanted attention. It can also be setup and put away in a matter of seconds.

A further advantage of the present invention is that it allows the ball to roll on the actual putting surface for its entire travel. This helps a golfer improve green reading skills.

Yet a further advantage of the present invention is that it accommodates various putting stances. As is the case with any specialized skill, there is not universal agreement on a best stance. Golfers develop their own stance, which can become important to their success, but the chosen stance may not be to someone else's liking. For example, one golfer may prefer a knock-kneed, toed-in stance to stabilize the body. Another player may find a different stance more comfortable and effective to accomplish a good putt. The present invention does not dictate a particular stance, rather it focuses on the mechanics of a good stroke while allowing a golfer to use his or her existing stance. Likewise, the present invention accommodates various strokes (e.g., linear or pendulum-like) and grips.

While the invention has been described in terms of its preferred embodiments, those skilled in the art will recognize that the invention can be practiced with modifications within the spirit and scope of the foregoing detailed description. Such alternative embodiments and implementations are intended to come within the scope of the present invention.